REMARKS

1. Applicant respectfully requests the Examiner's reconsideration of the present application as amended. Claims 1-8, and 10-21 remain outstanding.

2. The title of the Application is amended to "Dynamic generation of multimedia code for image processing." Applicant certifies that no new matter was added to the application. In the computer arts, the term "on-the-fly"

5 describes activities that "develop or occur dynamically rather than as the result of something that is statically predefined (en.wikipedia.org/wiki/On-the-fly)." In the computer arts, "dynamic" is commonly understood to mean "pertaining to events occurring at run time, or during processing." IBM Dictionary of Computing, p.224, McGraw-Hill (1994). Claims 1 and 12. At page 5, lines 21-22, the application

10 describes "[t]he abstract routine generator generates an abstract representation of the code, commonly in the form of a directed acyclic graph during runtime (emphasis and brackets added)." At page 7, line 6-7, the specification describes [t]his enables the translation to be executed at program startup . . . . (emphasis and brackets added)." Thus, because the application describes subject matter

15 that one of ordinary skill would understand to be dynamic, amendment of the title to include the term "dynamic" does not constitute new matter.

35 U.S.C. § 102

4. Claims 1-3, 7-8, 11-14, 18, 19 and 21 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Aho et al. ("Aho").

20 Aho discloses and teaches a basic concept of a compiler that reads a program written in one language, i.e., the source language, and translates it into an equivalent program in another language, the target language. Figure 1.9 on page 10 of Aho provides a typical decomposition of a compiler which includes multiple phases that undergo analysis-synthesis process.

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Specifically, Aho teaches a basic compilation process that includes intermediate code generation from page 463 to 512. On page 464, <u>Aho</u> illustrates a graphical representation of a syntax tree.

To distinguish the claimed invention from Aho more thoroughly, claim 1 is

5   amended to describe an <u>apparatus for generating processor-specific multimedia routines dynamically</u> that includes:

"a computer; and

a program executing on said computer, said program including instructions for · processing multimedia data, said program further including:

10   an <u>abstract routine generator</u> for receiving a data stream comprising a multimedia routine and for outputting a non-processor-specific abstract representation thereof <u>at program startup</u>; and

<u>a translator</u> for said abstract routine generator for receiving said abstract representation and for outputting processor-specific final code translated from

15   said non-processor-specific abstract representation for processing multimedia input data at <u>program startup</u>." support for the amendment is found in Figure 1 of the application, and in the specification, at page 5, line 7 to page 7, line 15.

Aho provides a general description of a compiler. While the claimed invention shows some of the functionality of a computer, there is no description in Aho of an

20   apparatus <u>for generating processor-specific multimedia routines dynamically</u> that includes: a <u>computer, a multimedia processing program</u>, the program <u>incorporating elements for dynamically outputting a non-processor-specific abstract representation of a multimedia routine and at program startup and outputting processor-specific final code translated from said non-processor-specific abstract representation</u>. Claim 12 is

25   amended in similar fashion. Accordingly, the rejection of claims 1 and 12 under 35 U.S.C. § 102(b) is deemed to be overcome. In view of their dependence from allowable claims, all dependents are also deemed to be allowable.

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35 U.S.C. § 103

4.   Claims 5-6. 10, 16, 17 and 20 stand rejected under 35 U.S.C 103 (a) as being unpatentable over Aho. In view of the above amendment, the current rejection under 35
5   U.S.C. § 103 is deemed to be moot.

5.   Claims 9 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Aho in view of "Dictionary of Computing." Applicant respectfully points out that claims 9 and 22 were cancelled in the response of April 15, 2005.
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6.   Claims1-3, 7-8, 10-14 and 18-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Benson. Benson does describe a code translator that resembles a conventional compiler. However, there is no teaching or suggestion in Benson of an apparatus <u>for generating processor-specific multimedia routines dynamically</u> that
15   includes: a <u>computer, a multimedia processing program</u>, the program <u>incorporating elements for dynamically outputting a non-processor-specific abstract representation of a multimedia routine and at program startup and outputting processor-specific final code translated from said non-processor-specific abstract representation</u>. Accordingly, the rejection of claims 1 and 12 under 35 U.S.C. § 103, and all dependents is deemed to
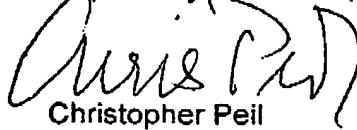20   be overcome.

7.   Claims 4-6 and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Benson in view of Ansari. In view of the above amendments to claims 1 and 12, the current rejection is deemed moot.
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CONCLUSION

Applicant respectfully submits that, in view of the amendments and discussion set
5   forth herein, the pending claims are patentable over the prior art. As such, the Examiner
is earnestly requested to withdraw all rejections, allowing the Application to pass to issue
as a United States Patent.

Should the Examiner deem it helpful, he is urged to contact Applicant's attorney at
650-474-8400.

10   Respectfully Submitted,

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